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FILE 'HOME' ENTERED AT 14:20:44 ON 07 MAR 2006

=> file uspatfull COST IN U.S. DOLLARS

FULL ESTIMATED COST

SINCE FILE TOTAL ENTRY SESSION 0.21 0.21

FILE 'USPATFULL' ENTERED AT 14:20:51 ON 07 MAR 2006 CA INDEXING COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

FILE COVERS 1971 TO PATENT PUBLICATION DATE: 2 Mar 2006 (20060302/PD) FILE LAST UPDATED: 2 Mar 2006 (20060302/ED) HIGHEST GRANTED PATENT NUMBER: US7007305 HIGHEST APPLICATION PUBLICATION NUMBER: US2006048257 CA INDEXING IS CURRENT THROUGH 28 Feb 2006 (20060228/UPCA) ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 2 Mar 2006 (20060302/PD) REVISED CLASS FIELDS (/NCL) LAST RELOADED: Dec 2005 USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Dec 2005

=> s us5718876/pn 1 US5718876/PN 1.1

=> s band IV 436696 BAND 473105 IV

89 BAND IV L2

(BAND(W)IV)

=> s l1 and l2 L3

1 L1 AND L2

=> d kwic

SUMM

ANSWER 1 OF 1 USPATFULL on STN L3 PΤ US 5718876 19980217

. . least the aluminum chlorhydroxide component of the composition, until the ratio of the height of the peak corresponding to Kd=0.7 (

Band IV) to that of the peak corresponding to Kd=0.5 (Band III) is at least 2:1. At column 2, lines 60-61 of.

=> s HPLC Band IV(p)20%

94378 HPLC 436696 BAND

473105 IV

5 HPLC BAND IV

(HPLC(W)BAND(W)IV)

3488591 20% (20)

L43 HPLC BAND IV(P)20%

=> d 1-3 ibib abs

ANSWER 1 OF 3 USPATFULL on STN

ACCESSION NUMBER: 2005:214492 USPATFULL

Amino acid free stable aluminum/zirconium TITLE:

antiperspirant solution

INVENTOR (S): Li, Zijun, Westfield, NJ, UNITED STATES

Parekh, Jawahar Chunilal, Livingston, NJ, UNITED STATES

General Chemical Corporation (U.S. corporation) PATENT ASSIGNEE(S):

NUMBER KIND DATE -----PATENT INFORMATION: US 2005186163 A1 20050825 APPLICATION INFO.: US 2005-87010 A1 20050322 (11)

Division of Ser. No. US 2002-185298, filed on 28 Jun RELATED APPLN. INFO.:

2002, PENDING

DOCUMENT TYPE: Utility FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: GENERAL CHEMICAL PERFORMANCE PRODUCTS LLC., 90 EAST

HALSEY ROAD, PARSIPPANY, NJ, 07054, US

NUMBER OF CLAIMS: EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 1 Drawing Page(s)

LINE COUNT: 376

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

An amino acid free stable aluminum zirconium polyhydric alcohol aqueous solution having a high anhydrous antiperspirant solid concentration and a high percentage of low molecular weight aluminum species, i.e., containing 60% or more of band IV peak area based on high pressure liquid chromatography, is prepared by adding a zirconium salt to an aqueous polyhydric alcohol solution of a basic aluminum chloride.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ANSWER 2 OF 3 USPATFULL on STN

ACCESSION NUMBER: 2005:208458 USPATFULL

TITLE: Method of making aluminum-zirconium antiperspirant of

enhanced efficacy

INVENTOR(S): Li, Zijun, Westfield, NJ, UNITED STATES

KIND DATE NUMBER -----US 2005180934 A1 20050818 US 2004-756620 A1 20040217 (10) PATENT INFORMATION: APPLICATION INFO.:

DOCUMENT TYPE: Utility APPLICATION FILE SEGMENT:

LEGAL REPRESENTATIVE: Arthur J. Plantamura, c/o General Chemical, 90 E.

Halsey Road, Parsippany, NJ, 07054, US

NUMBER OF CLAIMS: 11 EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 2 Drawing Page(s)

LINE COUNT: 364

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

A novel efficacious and less irritant aluminum-zirconium antiperspirant composition is provided by the addition of a small amount of AlCl.sub.3 and/or HCl to the activated aluminum component. After the heating of diluted basic aluminum chlorohydrate solution, cooling to room temperature, mixing with small amount of AlCl.sub.3 or HCl and then reacting with zirconium glycine complex, an aluminum-zirconium salt is produced with a maximum amount of depolymerization aluminum and zirconium species. The addition of a small amount of AlCl.sub.3 or HCl to the diluted and activated aluminum chlorohydrate solution accelerates the depolymerization of the activated ACH solution, and upon the addition of zirconium glycinate the solution is further depolymerized

and results in the formation of less polymerized zirconium species.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 3 OF 3 USPATFULL on STN

ACCESSION NUMBER: 2004:1777 USPATFULL

TITLE: Amino acid free stable aluminum / zirconium

INVENTOR(S): Li, Zijun, Westfield, NJ, UNITED STATES

Parekh, Jawahar Chunilal, Livingston, NJ, UNITED STATES

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: Arthur J. Plantamura, General Chemical Corporation, 90

East Halsey Road, Parsippany, NJ, 07954

NUMBER OF CLAIMS: 2: EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 1 Drawing Page(s)

LINE COUNT: 385

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB An amino acid free stable aluminum zirconium polyhydric alcohol aqueous solution having a high anhydrous antiperspirant solid concentration and a high percentage of low molecular weight aluminum species, i.e., containing 60% or more of band IV peak area based on high pressure liquid chromatography, is prepared by adding a zirconium salt to an aqueous polyhydric alcohol solution of a basic aluminum chloride.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> d his

1.1

(FILE 'HOME' ENTERED AT 14:20:44 ON 07 MAR 2006)

FILE 'USPATFULL' ENTERED AT 14:20:51 ON 07 MAR 2006

1 S US5718876/PN

L2 89 S BAND IV L3 1 S L1 AND L2

L4 3 S HPLC BAND IV(P)20%

=> s HPLC Band IV

94378 HPLC

436696 BAND

473105 IV

L5 5 HPLC BAND IV

(HPLC(W)BAND(W)IV)

=> d 1-5 ibib abs

L5 ANSWER 1 OF 5 USPATFULL on STN

ACCESSION NUMBER: 2005:318034 USPATFULL

TITLE: Fragrance friendly and cost effective antiperspirant

actives and method of making the same

INVENTOR(S): Parekh, Jawahar C., Livingston, NJ, UNITED STATES

Amin, Pradip T., Edison, NJ, UNITED STATES Shin, Chung Teck, Livingston, NJ, UNITED STATES

NUMBER KIND DATE

PATENT INFORMATION: US 2005276773 A1 20051215 APPLICATION INFO.: US 2004-865397 A1 20040610 (10)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: GENERAL CHEMICAL PERFORMANCE PRODUCTS LLC., 90 EAST

HALSEY ROAD, PARSIPPANY, NJ, 07054, US

NUMBER OF CLAIMS: 31 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 1 Drawing Page(s)

LINE COUNT: 1124

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A cost effective process is provided for making stable, efficacious, amino acid and polyhydric alcohol free concentrated aqueous aluminum zirconium salt solutions. Absence of amino acid, low iron content and low trace metal impurity levels improve compatibility with fragrances and minimizes the probability of the product color change and possibly fabric staining significantly. The novel aluminum zirconium actives also minimize iron contribution to underarm area that supports growth of microflora which is responsible for axillary malodour by the biotransformation of nonodorous precursors present in perspiration. The astringent complexes of the present invention may be obtained in solution or dry powder form. As a result, the complexes are satisfactory for use in any of wide variety of conventional antiperspirant forms.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 2 OF 5 USPATFULL on STN

ACCESSION NUMBER: 2005:305302 USPATFULL

TITLE: High pH antiperspirant compositions of enhanced

efficacy

INVENTOR(S): Li, Zijun, Westfield, NJ, UNITED STATES

NUMBER KIND DATE

PATENT INFORMATION: US 2005265939 A1 20051201

APPLICATION INFO.: US 2004-857493 A1 20040528 (10)

DOCUMENT TYPE: Utility

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: GENERAL CHEMICAL PERFORMANCE PRODUCTS LLC., 90 EAST

HALSEY ROAD, PARSIPPANY, NJ, 07054, US

NUMBER OF CLAIMS: 32 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 3 Drawing Page(s)

LINE COUNT: 703

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Aluminum and aluminum-zirconium antiperspirant compositions of enhanced efficacy and a pH value of at least 3.5 are provided that are made by reaction with insoluble, strongly alkaline strontium or calcium salts. The aluminum and aluminum-zirconium strontium or calcium compositions show high pH values with characteristic HPLC Band III to Band II ratios of at least 0.5. The basic aluminum halohydrate (or nitrate) solutions typically have aluminum to anion ratio of less that 1.9. The solution compositions are stable with respect to both HPLC Band III to Band II ratio and viscosity at concentrations of about 20% to about 40% by weight of anhydrous solid. The solid state compositions form hard sticks with low irritation, at low metal to chloride ratios of about 0.9 to about 1.2.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:

2005:214492 USPATFULL

TITLE:

Amino acid free stable aluminum/zirconium

antiperspirant solution

INVENTOR(S):

Li, Zijun, Westfield, NJ, UNITED STATES

Parekh, Jawahar Chunilal, Livingston, NJ, UNITED STATES

PATENT ASSIGNEE(S):

General Chemical Corporation (U.S. corporation)

KIND DATE NUMBER -----

PATENT INFORMATION:

APPLICATION INFO.:

US 2005186163 A1 20050825 US 2005-87010 A1 20050322 (11)

RELATED APPLN. INFO.:

Division of Ser. No. US 2002-185298, filed on 28 Jun

2002, PENDING

DOCUMENT TYPE:

Utility APPLICATION

FILE SEGMENT: LEGAL REPRESENTATIVE:

GENERAL CHEMICAL PERFORMANCE PRODUCTS LLC., 90 EAST

HALSEY ROAD, PARSIPPANY, NJ, 07054, US

NUMBER OF CLAIMS:

EXEMPLARY CLAIM: NUMBER OF DRAWINGS:

1 Drawing Page(s)

LINE COUNT:

376

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB

An amino acid free stable aluminum zirconium polyhydric alcohol aqueous solution having a high anhydrous antiperspirant solid concentration and a high percentage of low molecular weight aluminum species, i.e., containing 60% or more of band IV peak area based on high pressure liquid chromatography, is prepared by adding a zirconium salt to an aqueous polyhydric alcohol solution of a basic aluminum chloride.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ANSWER 4 OF 5 USPATFULL on STN

ACCESSION NUMBER:

2005:208458 USPATFULL

TITLE:

Method of making aluminum-zirconium antiperspirant of

enhanced efficacy

INVENTOR(S):

Li, Zijun, Westfield, NJ, UNITED STATES

NUMBER KIND DATE ______

PATENT INFORMATION:

APPLICATION INFO.:

US 2005180934 A1 20050818 US 2004-756620 A1 20040217 (10)

DOCUMENT TYPE:

Utility

FILE SEGMENT:

APPLICATION

LEGAL REPRESENTATIVE:

Arthur J. Plantamura, c/o General Chemical, 90 E.

Halsey Road, Parsippany, NJ, 07054, US

NUMBER OF CLAIMS:

EXEMPLARY CLAIM: NUMBER OF DRAWINGS:

2 Drawing Page(s)

LINE COUNT:

364

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB

A novel efficacious and less irritant aluminum-zirconium antiperspirant composition is provided by the addition of a small amount of AlCl.sub.3 and/or HCl to the activated aluminum component. After the heating of diluted basic aluminum chlorohydrate solution, cooling to room temperature, mixing with small amount of AlCl.sub.3 or HCl and then reacting with zirconium glycine complex, an aluminum-zirconium salt is produced with a maximum amount of depolymerization aluminum and zirconium species. The addition of a small amount of AlCl.sub.3 or HCl to the diluted and activated aluminum chlorohydrate solution accelerates the depolymerization of the activated ACH solution, and upon the addition of zirconium glycinate the solution is further depolymerized and results in the formation of less polymerized zirconium species.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 5 OF 5 USPATFULL on STN

ACCESSION NUMBER: 2004:1777 USPATFULL

TITLE: Amino acid free stable aluminum / zirconium

INVENTOR(S): Li, Zijun, Westfield, NJ, UNITED STATES

Parekh, Jawahar Chunilal, Livingston, NJ, UNITED STATES

APPLICATION INFO.: US 2002-185298 A1 20020628 (10)

DOCUMENT TYPE: Utility FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: Arthur J. Plantamura, General Chemical Corporation, 90

East Halsey Road, Parsippany, NJ, 07954

NUMBER OF CLAIMS: 21 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 1 Drawing Page(s)

LINE COUNT: 385

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

An amino acid free stable aluminum zirconium polyhydric alcohol aqueous solution having a high anhydrous antiperspirant solid concentration and a high percentage of low molecular weight aluminum species, i.e., containing 60% or more of band IV peak area based on high pressure liquid chromatography, is prepared by adding a zirconium salt to an aqueous polyhydric alcohol solution of a basic aluminum chloride.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> s peak 5

342534 PEAK 4245617 5 805 PEAK 5

(PEAK(W)5)

=> d his

L6

(FILE 'HOME' ENTERED AT 14:20:44 ON 07 MAR 2006)

FILE 'USPATFULL' ENTERED AT 14:20:51 ON 07 MAR 2006

L1 1 S US5718876/PN

L2 89 S BAND IV L3 1 S L1 AND L2

L4 3 S HPLC BAND IV(P)20%

L5 5 S HPLC BAND IV

L6 805 S PEAK 5

=> s l1 and l6

L7 0 L1 AND L6

=> s antiperspirant? or deodorant?

3669 ANTIPERSPIRANT?

10522 DEODORANT?

L8 11606 ANTIPERSPIRANT? OR DEODORANT?

=> s 18/ti

448 ANTIPERSPIRANT?/TI

503 DEODORANT?/TI

L9 855 (ANTIPERSPIRANT?/TI OR DEODORANT?/TI)

=> s 19 and 15

4 L9 AND L5

=> s glycine?

90402 GLYCINE?

=> d l11 and l10

L10 IS NOT VALID HERE

For an explanation, enter "HELP DISPLAY".

=> s 111 and 110

L12 4 L11 AND L10

=> d 1-4 ibib abs

L12 ANSWER 1 OF 4 USPATFULL on STN

ACCESSION NUMBER: 2005:318034 USPATFULL

Fragrance friendly and cost effective TITLE:

antiperspirant actives and method of making the

same

INVENTOR (S): Parekh, Jawahar C., Livingston, NJ, UNITED STATES

Amin, Pradip T., Edison, NJ, UNITED STATES

Shin, Chung Teck, Livingston, NJ, UNITED STATES

KIND DATE NUMBER -----

US 2005276773 A1 20051215 US 2004-865397 A1 20040610 (10) PATENT INFORMATION:

APPLICATION INFO.:

DOCUMENT TYPE: Utility APPLICATION FILE SEGMENT:

LEGAL REPRESENTATIVE: GENERAL CHEMICAL PERFORMANCE PRODUCTS LLC., 90 EAST

HALSEY ROAD, PARSIPPANY, NJ, 07054, US

NUMBER OF CLAIMS: 31 EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 1 Drawing Page(s)

LINE COUNT: 1124

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

A cost effective process is provided for making stable, efficacious, amino acid and polyhydric alcohol free concentrated aqueous aluminum zirconium salt solutions. Absence of amino acid, low iron content and low trace metal impurity levels improve compatibility with fragrances and minimizes the probability of the product color change and possibly fabric staining significantly. The novel aluminum zirconium actives also minimize iron contribution to underarm area that supports growth of microflora which is responsible for axillary malodour by the biotransformation of nonodorous precursors present in perspiration. The astringent complexes of the present invention may be obtained in solution or dry powder form. As a result, the complexes are satisfactory for use in any of wide variety of conventional antiperspirant forms.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L12 ANSWER 2 OF 4 USPATFULL on STN

ACCESSION NUMBER: 2005:305302 USPATFULL

TITLE: High pH antiperspirant compositions of

enhanced efficacy

INVENTOR(S): Li, Zijun, Westfield, NJ, UNITED STATES

> NUMBER KIND ______

PATENT INFORMATION: US 2005265939 Al 20051201

APPLICATION INFO.: US 2004-857493 A1 20040528 (10)

DOCUMENT TYPE: Utility FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: GENERAL CHEMICAL PERFORMANCE PRODUCTS LLC., 90 EAST

HALSEY ROAD, PARSIPPANY, NJ, 07054, US

NUMBER OF CLAIMS: 32 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 3 Drawing Page(s)

LINE COUNT: 703

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Aluminum and aluminum-zirconium antiperspirant compositions of enhanced efficacy and a pH value of at least 3.5 are provided that are made by reaction with insoluble, strongly alkaline strontium or calcium salts. The aluminum and aluminum-zirconium strontium or calcium compositions show high pH values with characteristic HPLC Band III to Band II ratios of at least 0.5. The basic aluminum halohydrate (or nitrate) solutions typically have aluminum to anion ratio of less that 1.9. The solution compositions are stable with respect to both HPLC Band III to Band II ratio and viscosity at concentrations of about 20% to about 40% by weight of anhydrous solid. The solid state compositions form hard sticks with low irritation, at low metal to chloride ratios of about 0.9 to about 1.2.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L12 ANSWER 3 OF 4 USPATFULL on STN

ACCESSION NUMBER: 2005:214492 USPATFULL

TITLE: Amino acid free stable aluminum/zirconium

antiperspirant solution

INVENTOR(S): Li, Zijun, Westfield, NJ, UNITED STATES

Parekh, Jawahar Chunilal, Livingston, NJ, UNITED STATES

PATENT ASSIGNEE(S): General Chemical Corporation (U.S. corporation)

RELATED APPLN. INFO.: Division of Ser. No. US 2002-185298, filed on 28 Jun

2002, PENDING

DOCUMENT TYPE: . Utility
FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: GENERAL CHEMICAL PERFORMANCE PRODUCTS LLC., 90 EAST

HALSEY ROAD, PARSIPPANY, NJ, 07054, US

NUMBER OF CLAIMS: 21 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 1 Drawing Page(s)

LINE COUNT: 376

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB An amino acid free stable aluminum zirconium polyhydric alcohol aqueous solution having a high anhydrous antiperspirant solid concentration and a high percentage of low molecular weight aluminum species, i.e., containing 60% or more of band IV peak area based on high pressure liquid chromatography, is prepared by adding a zirconium salt to an aqueous polyhydric alcohol solution of a basic aluminum chloride.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L12 ANSWER 4 OF 4 USPATFULL on STN

ACCESSION NUMBER: 2005:208458 USPATFULL

TITLE: Method of making aluminum-zirconium antiperspirant of enhanced efficacy

Li, Zijun, Westfield, NJ, UNITED STATES INVENTOR(S):

> NUMBER KIND DATE -----

US 2005180934 A1 20050818 PATENT INFORMATION:

APPLICATION INFO.: US 2004-756620 A1 20040217 (10)

DOCUMENT TYPE: Utility FILE SEGMENT: APPLICATION

Arthur J. Plantamura, c/o General Chemical, 90 E. LEGAL REPRESENTATIVE:

Halsey Road, Parsippany, NJ, 07054, US

NUMBER OF CLAIMS: EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 2 Drawing Page(s)

LINE COUNT: 364

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

A novel efficacious and less irritant aluminum-zirconium antiperspirant composition is provided by the addition of a small amount of AlCl.sub.3 and/or HCl to the activated aluminum component. After the heating of diluted basic aluminum chlorohydrate solution, cooling to room temperature, mixing with small amount of AlCl.sub.3 or HCl and then reacting with zirconium glycine complex, an aluminum-zirconium salt is produced with a maximum amount of depolymerization aluminum and zirconium species. The addition of a small amount of AlCl.sub.3 or HCl to the diluted and activated aluminum chlorohydrate solution accelerates the depolymerization of the activated ACH solution, and upon the addition of zirconium glycinate the solution is further depolymerized and results in the formation of less polymerized zirconium species.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> d his

(FILE 'HOME' ENTERED AT 14:20:44 ON 07 MAR 2006)

FILE 'USPATFULL' ENTERED AT 14:20:51 ON 07 MAR 2006

L11 S US5718876/PN

89 S BAND IV L2

1 S L1 AND L2 L3

3 S HPLC BAND IV(P)20% L4

5 S HPLC BAND IV L5

805 S PEAK 5 L6

0 S L1 AND L6 L7

11606 S ANTIPERSPIRANT? OR DEODORANT? L8

855 S L8/TI L9

4 S L9 AND L5 L10 L11 90402 S GLYCINE?

4 S L11 AND L10 L12

=> s band iv

436696 BAND

473105 IV

L13 89 BAND IV

(BAND(W)IV)

=> s 113 and 19

17 L13 AND L9 L14

=> s 114 and 111

14 L14 AND L11

=> d 1-14 ibib abs

L15 ANSWER 1 OF 14 USPATFULL on STN

ACCESSION NUMBER: 2005:318034 USPATFULL

TITLE: Fragrance friendly and cost effective

antiperspirant actives and method of making the

same

INVENTOR(S): Parekh, Jawahar C., Livingston, NJ, UNITED STATES

Amin, Pradip T., Edison, NJ, UNITED STATES

Shin, Chung Teck, Livingston, NJ, UNITED STATES

PATENT INFORMATION: US 2005276773 A1 20051215 APPLICATION INFO.: US 2004-865397 A1 20040610 (10)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: GENERAL CHEMICAL PERFORMANCE PRODUCTS LLC., 90 EAST

HALSEY ROAD, PARSIPPANY, NJ, 07054, US

NUMBER OF CLAIMS: 31 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 1 Drawing Page(s)

LINE COUNT: 1124

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A cost effective process is provided for making stable, efficacious, amino acid and polyhydric alcohol free concentrated aqueous aluminum zirconium salt solutions. Absence of amino acid, low iron content and low trace metal impurity levels improve compatibility with fragrances and minimizes the probability of the product color change and possibly fabric staining significantly. The novel aluminum zirconium actives also minimize iron contribution to underarm area that supports growth of microflora which is responsible for axillary malodour by the biotransformation of nonodorous precursors present in perspiration. The astringent complexes of the present invention may be obtained in solution or dry powder form. As a result, the complexes are satisfactory for use in any of wide variety of conventional antiperspirant forms.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 2 OF 14 USPATFULL on STN

ACCESSION NUMBER: 2005:305302 USPATFULL

TITLE: High pH antiperspirant compositions of

enhanced efficacy

INVENTOR(S): Li, Zijun, Westfield, NJ, UNITED STATES

NUMBER KIND DATE

PATENT INFORMATION: US 2005265939 · A1 20051201

APPLICATION INFO:: US 2004-857493 A1 20040528 (10)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: GENERAL CHEMICAL PERFORMANCE PRODUCTS LLC., 90 EAST

HALSEY ROAD, PARSIPPANY, NJ, 07054, US

NUMBER OF CLAIMS: 32 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 3 Drawing Page(s)

LINE COUNT: 703

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Aluminum and aluminum-zirconium antiperspirant compositions of enhanced efficacy and a pH value of at least 3.5 are provided that are made by reaction with insoluble, strongly alkaline strontium or calcium salts. The aluminum and aluminum-zirconium strontium or calcium compositions show high pH values with characteristic HPLC Band III to Band II ratios

of at least 0.5. The basic aluminum halohydrate (or nitrate) solutions typically have aluminum to anion ratio of less that 1.9. The solution compositions are stable with respect to both HPLC Band III to Band II ratio and viscosity at concentrations of about 20% to about 40% by weight of anhydrous solid. The solid state compositions form hard sticks with low irritation, at low metal to chloride ratios of about 0.9 to about 1.2.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 3 OF 14 USPATFULL on STN

ACCESSION NUMBER: 2005:247040 USPATFULL

TITLE: ENHANCED EFFICACY BASIC ALUMINUM HALIDES/METAL CATION

SALT, ANTIPERSPIRANTS ACTIVES AND

COMPOSITIONS CONTAINING SUCH MATERIALS AND METHODS FOR

MAKING

INVENTOR(S): Parekh, Jawahar C., Livingston, NJ, UNITED STATES

Amin, Pradip, Edison, NJ, UNITED STATES

KIND DATE NUMBER -----

US 2005214234 A1 20050929 US 2004-807872 A1 20040324 PATENT INFORMATION:

APPLICATION INFO.: A1 20040324 (10)

DOCUMENT TYPE: Utility APPLICATION FILE SEGMENT:

GENERAL CHEMICAL PERFORMANCE PRODUCTS LLC., 90 EAST LEGAL REPRESENTATIVE:

HALSEY ROAD, PARSIPPANY, NJ, 07054, US

NUMBER OF CLAIMS: 45 EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 1 Drawing Page(s)

LINE COUNT: 673

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Disclosed are aqueous antiperspirant active compositions comprising an AB admixtures of basic aluminum halides and a metal cation salts which yield enhanced antiperspirant efficacy; and methods of making such antiperspirant compositions. The basic aluminum halides, optionally contain an amino acid or salts of amino acids, and/or antimicrobial agent and are combined with a metal cation antiperspirant (e.g., Ti salt or Hf salt or Sn salt or Zr salt) and optionally with a organic solvent having at least two carbon atoms and at least one hydroxy group and mixtures thereof and methods of making such mixtures. Basic aluminum halides having enhanced antiperspirant efficacy are produced by reacting (a) aluminum powder; (b) an aluminum halide; and (c) water at a temperature greater than about 85° C. This reaction is maintained until reaction products having an Al:halide ratio of about 1.2 to 1.5 and preferably 1.3 to 1.4:1; and a solution solids concentration of about 30-40 weight percent on an anhydrous basis are obtained. The basic aluminum halide of this invention are characterized as having a Size Exclusion Chromatography (HPLC) Test Band I of less than 5%, preferably less than 1%, Band II percent aluminum value of 20%-60% preferably about 35% to 55%, Band III percent aluminum value of 10% to 35% preferably 15%-30% and Band IV value of 15% to 50% preferably 25% to 35% and sum of peak 3 and 4 areas of at least 45% and no more than 70% and preferably 65%.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 4 OF 14 USPATFULL on STN

2005:214492 USPATFULL ACCESSION NUMBER:

TITLE: Amino acid free stable aluminum/zirconium

antiperspirant solution

INVENTOR(S): Li, Zijun, Westfield, NJ, UNITED STATES Parekh, Jawahar Chunilal, Livingston, NJ, UNITED STATES

PATENT ASSIGNEE(S): General Chemical Corporation (U.S. corporation)

> NUMBER KIND DATE ------

US 2005186163 A1 20050825 US 2005-87010 A1 20050322 (11) PATENT INFORMATION:

APPLICATION INFO.:

RELATED APPLN. INFO.: Division of Ser. No. US 2002-185298, filed on 28 Jun

2002, PENDING

DOCUMENT TYPE: Utility APPLICATION FILE SEGMENT:

LEGAL REPRESENTATIVE: GENERAL CHEMICAL PERFORMANCE PRODUCTS LLC., 90 EAST

HALSEY ROAD, PARSIPPANY, NJ, 07054, US

NUMBER OF CLAIMS: EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 1 Drawing Page(s)

LINE COUNT: 376

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

An amino acid free stable aluminum zirconium polyhydric alcohol aqueous solution having a high anhydrous antiperspirant solid concentration and a high percentage of low molecular weight aluminum species, i.e.,

containing 60% or more of band IV peak area based on

high pressure liquid chromatography, is prepared by adding a zirconium salt to an aqueous polyhydric alcohol solution of a basic aluminum

chloride.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 5 OF 14 USPATFULL on STN

ACCESSION NUMBER: 2005:208458 USPATFULL

TITLE: Method of making aluminum-zirconium

antiperspirant of enhanced efficacy

Li, Zijun, Westfield, NJ, UNITED STATES INVENTOR(S):

> KIND DATE NUMBER -----US 2005180934 A1 20050818 US 2004-756620 A1 20040217 (10)

APPLICATION INFO.: DOCUMENT TYPE: Utility APPLICATION

Arthur J. Plantamura, c/o General Chemical, 90 E. LEGAL REPRESENTATIVE:

Halsey Road, Parsippany, NJ, 07054, US

NUMBER OF CLAIMS: 11 EXEMPLARY CLAIM:

PATENT INFORMATION:

FILE SEGMENT:

NUMBER OF DRAWINGS: 2 Drawing Page(s)

LINE COUNT: 364

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

A novel efficacious and less irritant aluminum-zirconium antiperspirant composition is provided by the addition of a small amount of AlCl.sub.3 and/or HCl to the activated aluminum component. After the heating of diluted basic aluminum chlorohydrate solution, cooling to room temperature, mixing with small amount of AlCl.sub.3 or HCl and then reacting with zirconium glycine complex, an aluminum-zirconium salt is produced with a maximum amount of depolymerization aluminum and zirconium species. The addition of a small amount of AlCl.sub.3 or HCl to the diluted and activated aluminum chlorohydrate solution accelerates the depolymerization of the activated ACH solution, and upon the addition of zirconium glycinate the solution is further depolymerized and results in the formation of less polymerized zirconium species.

L15 ANSWER 6 OF 14 USPATFULL on STN

ACCESSION NUMBER: 2005:140303 USPATFULL

Enhanced efficacy basic aluminum halides, TITLE:

antiperspirant active compositions and methods

for making

INVENTOR(S): Parekh, Jawahar C., Livingston, NJ, UNITED STATES

Amin, Pradip, Edison, NJ, UNITED STATES

Reheis, Inc., Berkeley Heights, NJ, UNITED STATES (U.S. PATENT ASSIGNEE(S):

corporation)

NUMBER KIND DATE -----

US 6902724 B1 20050607 US 2004-807996 20040324 PATENT INFORMATION:

20040324 (10) APPLICATION INFO.:

DOCUMENT TYPE: Utility FILE SEGMENT: GRANTED

FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Dodson, Shelley A. LEGAL REPRESENTATIVE: Plantamura, Arthur J.

NUMBER OF CLAIMS: 33 EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 2 Drawing Figure(s); 2 Drawing Page(s)

LINE COUNT: 1057

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Disclosed are basic aluminum halides having enhanced antiperspirant efficacy; methods of making such materials and antiperspirant compositions containing such basic aluminum halides, and optionally an amino acid, salts of amino acids, antimicrobial agents, or an organic solvent having at least two carbon atoms and at least one hydroxy group and mixture thereof and methods of making such mixtures. Basic aluminum halides having enhanced antiperspirant efficacy are produced by reacting (a) aluminum powder; (b) an aluminum halide; and (c) water at a temperature greater than about 85° C. This reaction is maintained until reaction products having an Al:halide ratio of about 1.2:1 to 1.5:1 and preferably 1.3 to 1.4:1; and a solution solids concentration of about 30-40 weight percent on an anhydrous basis are obtained. The products are characterized as having a Size Exclusion Chromatography (HPLC) Test Band I of less than 5%, preferably less than 1%, Band II percent aluminum value of 20-60% preferably about 35 to 55%, Band III percent aluminum value of 10 to 35% preferably 15-30% and Band IV value of 15 to 50% and preferably 25 to 35% and sum of peak 3 and 4 areas of at least 45% and no more than 70% and preferably 65%. The enhanced efficacy basic aluminum chloride salts of this invention are more economical to produce, show enhanced efficacy and are more stable compared to the conventional enhanced efficacy aluminum salts which show rapid degradation of Band III to Band II peak areas ratio are less irritant and more skin friendly.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 7 OF 14 USPATFULL on STN

ACCESSION NUMBER: 2005:22745 USPATFULL

TITLE: Stable aluminum / zirconium antiperspirant

solution free of amino acid and polyhydric alcohol

Li, Zijun, Westfield, NJ, UNITED STATES INVENTOR(S):

Parekh, Jawahar, Livingston, NJ, UNITED STATES

NUMBER KIND DATE -----US 2005019287 A1 20050127 US 2003-625038 A1 20030722 (10) PATENT INFORMATION: APPLICATION INFO.:

DOCUMENT TYPE: Utility FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: Arthur J. Plantamura, General Chemical Corporation, 90

East Halsey Rd, Parsippany, NJ, 07054

NUMBER OF CLAIMS: 18 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 2 Drawing Page(s)

LINE COUNT: 299

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

As table aluminum-zirconium aqueous solution of enhanced efficacy having a high concentration free of amino acid and polyhydric alcohol is disclosed. Such aluminum-zirconium salts are selected from aluminum/zirconium tetrachlorohydrate; aluminum/zirconium pentachlorohydrate, and aluminum/zirconium octachlorohydrate in which the aluminum to zirconium (Al/Zr) atomic ratio of said salt falls within the limits of the shaded areas A, B, and C, respectively, of the drawing graph wherein the aluminum/zirconium tetrachlorohydrate has an Al/Zr atomic ratio from about 2 to about 6 and metal/chloride molecular ratio about 0.9 to about 1.25; aluminum/zirconium pentachlorohydrate having Al/Zr atomic ratio from about 6 to about 10 and metal/chloride atomic

ratio from about 1.5 to about 1.65; and aluminum/zirconium

octachlorohydrate having Al/Zr molecular ratio from about 6 to about 10 and metal/chloride molecular ratio from about 0.9 to about 1.5.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 8 OF 14 USPATFULL on STN

ACCESSION NUMBER: 2004:120031 USPATFULL

TITLE: Antiperspirant compositions of enhanced

efficacy containing strontium

INVENTOR(S): Li, Zijun, Westfield, NJ, UNITED STATES

Parekh, Jawahar C., Livingston, NJ, UNITED STATES

PATENT INFORMATION: US 2004091436 A1 20040513
APPLICATION INFO.: US 2002-292861 A1 20021112 (10)

DOCUMENT TYPE: Utility FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: Arthur J. Plantamura, General Chemical Corp., 90 East

Halsey Road, Parsippany, NJ, 07054

NUMBER OF CLAIMS: 35 EXEMPLARY CLAIM: 1 LINE COUNT: 300

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Antiperspirant actives of aluminum and aluminum-zirconium of enhanced efficacy containing strontium and an amino acid that have a stable high HPLC Band III/II ratio are disclosed. The invention also discloses method for making the antiperspirant actives.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 9 OF 14 USPATFULL on STN

ACCESSION NUMBER: 2002:238631 USPATFULL

TITLE: Enhanced efficacy aluminum-zirconium antiperspirants and methods for making

INVENTOR(S): Li, Zijun, 313 Hazel Ave., Westfield, NJ, United States

07090

Parekh, Jawahar Chunilal, 62 Hillside Ave., Livingston,

NJ, United States 07039

US 2000-496168 20000201 (9) APPLICATION INFO.:

DOCUMENT TYPE: Utility

FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Nazario-Gonzalez, Porfirio

LEGAL REPRESENTATIVE: Plantamura, Arthur J.

NUMBER OF CLAIMS: 26

EXEMPLARY CLAIM: 1,18,26

NUMBER OF DRAWINGS: 1 Drawing Figure(s); 1 Drawing Page(s)

LINE COUNT: 460

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Stable aluminum-zirconium antiperspirant compositions in polyhydric alcohol solution with enhanced efficacy were made by direct reaction in aqueous solution of a soluble aluminum salt, a zirconium compound, a polyhydric alcohol, aluminum metal and optionally an amino acid buffer, and maintaining the solution at 100-140° C. to form a 20-45% by weight concentration of aluminum-zirconium complexes on an anhydrous basis. A solid product can be obtained by spray drying the product solution.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 10 OF 14 USPATFULL on STN

ACCESSION NUMBER: 1999:113352 USPATFULL

TITLE: Enhanced efficacy stable antiperspirant

active solution and method of making same

INVENTOR(S): Giovanniello, Rocco, Port Jervis, NY, United States

Ayala, Nelson, Middletown, NY, United States Shen, Jing, Middletown, NY, United States Shah, Ketan, Poughkeepsie, NY, United States

PATENT ASSIGNEE(S): Westwood Chemical Corporation, Middletown, NY, United

States (U.S. corporation)

KIND DATE NUMBER -----PATENT INFORMATION: 19990921

US 5955064 APPLICATION INFO.: US 1997-955056 19971021 (8)

DOCUMENT TYPE: Utility FILE SEGMENT: Granted

Dodson, Shelley A. PRIMARY EXAMINER:

LEGAL REPRESENTATIVE: Ostrolenk, Faber, Gerb & Soffen, LLP

NUMBER OF CLAIMS: 26 EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 8 Drawing Figure(s); 8 Drawing Page(s)

LINE COUNT: 1090

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

An enhanced antiperspirant active having improved stability and a process for preparing the enhanced antiperspirant active solution are disclosed, the process comprises blending an enhanced basic aluminum chlorohydrate antiperspirant active having a peak 4 content of at least 20% (Component A) with a zirconium hydroxychloride neutral amino acid complex (component B) and a conventional basic aluminum chloride (Component C) , the order of addition not being critical; wherein at least 10% by weight of the total aluminum being derived from Component A and about 90% to 10% of the aluminum being derived from Component C; thereby forming a stable antiperspirant active solution of enhanced efficacy, the overall concentration of reactants in solution being about 38% to 55% by weight.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 11 OF 14 USPATFULL on STN

ACCESSION NUMBER: 1999:63089 USPATFULL

TITLE: Method of inhibiting perspiration with basic aluminum

and aluminum/zirconium antiperspirants

INVENTOR(S): Parekh, Jawahar C., Livingston, NJ, United States

Rubino, Andrew M., New Providence, NJ, United States

PATENT ASSIGNEE(S): Reheis Inc., Berkeley Heights, NJ, United States (U.S.

corporation)

NUMBER KIND DATE

PATENT INFORMATION: US 5908616 19990601 APPLICATION INFO.: US 1998-24041 19980216 (9)

RELATED APPLN. INFO.: Division of Ser. No. US 1996-635290, filed on 19 Apr 1996, now patented, Pat. No. US 5718876 which is a

continuation of Ser. No. US 1990-579902, filed on 7 Sep

1990, now abandoned

DOCUMENT TYPE: Utility FILE SEGMENT: Granted

PRIMARY EXAMINER: Dodson, Shelley A.

LEGAL REPRESENTATIVE: Panitch, Schwarze, Jacobs & Nadel, P.C.

NUMBER OF CLAIMS: 13 EXEMPLARY CLAIM: 1 LINE COUNT: 558

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Basic aluminum halides and nitrates having enhanced antiperspirant efficacy are produced by reacting (a) aluminum powder, (b) an aluminum halide or nitrate solution and (c) water at a temperature greater than about 85° C. This reaction is maintained until reaction products having an Al:anion ratio of about 1.2 to 1.8 and a solution solids concentration of about 30-40 weight % on an anhydrous basis are obtained. The products are characterized as having a Size Exclusion Chromatography Test Band having a relative retention time corresponding to Band II of a Standard Basic Aluminum Chloride Size Exclusion Chromatogram and a Band II percent aluminum value of at least about 50% and a Band III percent aluminum value of less than 20%.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 12 OF 14 USPATFULL on STN

ACCESSION NUMBER: 1998:17052 USPATFULL

TITLE: Basic aluminum and aluminum/zirconium

antiperspirants and method of making the same

INVENTOR(S): Parekh, Jawahar C., Livingston, NJ, United States

Rubino, Andrew M., New Providence, NJ, United States

PATENT ASSIGNEE(S): Reheis Inc., Berkley Heights, NJ, United States (U.S.

corporation)

PATENT INFORMATION: US 5718876 19980217
APPLICATION INFO.: US 1996-635290 19960419 (8)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1990-579902, filed on 7 Sep

1990, now abandoned

DOCUMENT TYPE: Utility FILE SEGMENT: Granted

PRIMARY EXAMINER: Dodson, Shelley A.

LEGAL REPRESENTATIVE: Panitch Schwarze Jacobs & Nadel, P.C.

NUMBER OF CLAIMS: 10 EXEMPLARY CLAIM: 1 LINE COUNT: 517

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Basic aluminum halides and nitrates having enhanced antiperspirant efficacy are produced by reacting (a) aluminum powder, (b) an aluminum

halide or nitrate solution and (c) water at a temperature greater than about 85° C. This reaction is maintained until reaction products having an Al:anion ratio of about 1.2 to 1.8 and a solution solids concentration of about 30-40 weight % on an anhydrous basis are obtained. The products are characterized as having a Size Exclusion Chromatography Test Band having a relative retention time corresponding to Band II of a Standard Basic Aluminum Chloride Size Exclusion Chromatogram and a Band II percent aluminum value of at least about 50% and a Band III percent aluminum value of less than 20%.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 13 OF 14 USPATFULL on STN

90:11121 USPATFULL ACCESSION NUMBER:

TITLE: Preparation of antiperspirants

INVENTOR(S): Inward, Peter W., Wirral, United Kingdom

PATENT ASSIGNEE(S): Lever Brothers Company, New York, NY, United States

(U.S. corporation)

NUMBER KIND DATE ------ ----- ----- ------US 4900534 19900213 US 1987-82024 19870805 PATENT INFORMATION: 19870805 (7) APPLICATION INFO.:

> NUMBER DATE _____

GB 1986-19553 19860811 PRIORITY INFORMATION:

DOCUMENT TYPE: Utility FILE SEGMENT: Granted PRIMARY EXAMINER: Shine, W. J.

LEGAL REPRESENTATIVE: McGowan, Jr., Gerard J.

11 NUMBER OF CLAIMS: EXEMPLARY CLAIM: 1 LINE COUNT: 446

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

The disclosure concerns a process for the manufacture of aluminium zirconium halohydrate having an aluminium:zirconium molar ratio of from 2:1 to 7:1 and having a metal:chlorine molar ratio of from 0.9:1 to 2.1:1. Metallic aluminium is dissolved in an aqueous starting solution comprising an oxyhalide, hydroxyhalide or carbonate of zirconium and an aluminium halide or basic aluminium halide, which solution is heated at about 50° C. to 105° C. The solution of the final aluminium zirconium halohydrate has a concentration of metal of 0.5 to 2.3 moles/kg and a size exclusion chromatogram of which the Band III proporition is at least 20%.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 14 OF 14 USPATFULL on STN

82:55655 USPATFULL ACCESSION NUMBER:

Antiperspirant activity of basic aluminum TITLE:

compounds

INVENTOR(S):

Gosling, Keith, Richmond, England Jackson, Nigel L., Otley, England Leon, Nicholas H., Isleworth, England Mulley, Victor J., Reading, England Baldock, Michael J., Isleworth, England

PATENT ASSIGNEE(S): Lever Brothers Company, New York, NY, United States

(U.S. corporation)

KIND DATE NUMBER _____

10/756,620 and PCT US05/01711 PATENT INFORMATION: US 4359456 19821116 US 1980-213450 APPLICATION INFO.: 19801205 (6) RELATED APPLN. INFO.: Continuation of Ser. No. US 1979-51523, filed on 25 Jun 1979, now abandoned which is a continuation-in-part of Ser. No. US 1978-910988, filed on 30 May 1978, now abandoned which is a continuation of Ser. No. US 1977-758834, filed on 12 Jan 1977, now abandoned NUMBER DATE -----GB 1976-1401 19760114 PRIORITY INFORMATION: GB 1978-27755 19780623 DOCUMENT TYPE: Utility FILE SEGMENT: Granted Hearn, Brian E. PRIMARY EXAMINER: LEGAL REPRESENTATIVE: Feit, Irving N., Farrell, James J. NUMBER OF CLAIMS: EXEMPLARY CLAIM: 1 LINE COUNT: 1249 CAS INDEXING IS AVAILABLE FOR THIS PATENT. An improved antiperspirant active material, and methods for its preparation, identification and use as well as cosmetic compositions containing said material are disclosed. Said material comprises a polymeric aluminum compound having the empirical formula Al.sub.2 (OH).sub.6-a X.sub.a where X is Cl, Br or I, a is about 0.3 to about 4; wherein said antiperspirant active material is further characterized by: (a) a Size Exclusion Chromatography Test band having a relative retention time corresponding to Band III of the Standard Basic Aluminum Chloride Solution Size Exclusion Chromatogram; and (b) a Band III Percent Aluminum Value of at least 20 percent. CAS INDEXING IS AVAILABLE FOR THIS PATENT. => s zirconium? L16

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82609 ZIRCONIUM?
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=> d his

(FILE 'HOME' ENTERED AT 14:20:44 ON 07 MAR 2006)

FILE 'USPATFULL' ENTERED AT 14:20:51 ON 07 MAR 2006 L11 S US5718876/PN 89 S BAND IV L21 S L1 AND L2 L3 3 S HPLC BAND IV(P)20% L4 5 S HPLC BAND IV L5 805 S PEAK 5 L6 0 S L1 AND L6 L711606 S ANTIPERSPIRANT? OR DEODORANT? L8855 S L8/TI L9 4 S L9 AND L5 L10 L1190402 S GLYCINE? 4 S L11 AND L10 L1289 S BAND IV L1317 S L13 AND L9 L14 14 S L14 AND L11 L15

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10/756,620 and PCT US05/01711
L16 82609 S ZIRCONIUM?
=> s 115 and 116
     14 L15 AND L16
=> s us5718876/pn
           1 US5718876/PN
=> s 118 and 113
           1 L18 AND L13
=> d kwic
L19 ANSWER 1 OF 1 USPATFULL on STN
      US 5718876
                             19980217
      . . . least the aluminum chlorhydroxide component of the composition,
SUMM
      until the ratio of the height of the peak corresponding to Kd=0.7 (
      Band IV) to that of the peak corresponding to Kd=0.5
      (Band III) is at least 2:1. At column 2, lines 60-61 of. . .
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                 New IPC 8 SEARCH, DISPLAY, and SELECT enhancements added to
         JAN 13
                 INPADOC
NEWS 11
         JAN 17
                 Pre-1988 INPI data added to MARPAT
                 IPC 8 in the WPI family of databases including WPIFV
NEWS 12
         JAN 17
NEWS 13
         JAN 30
                 Saved answer limit increased
NEWS 14 JAN 31
                 Monthly current-awareness alert (SDI) frequency
                 added to TULSA
NEWS 15 FEB 21
                 STN AnaVist, Version 1.1, lets you share your STN AnaVist
                 visualization results
NEWS 16 FEB 22
                 Status of current WO (PCT) information on STN
         FEB 22
NEWS 17
                 The IPC thesaurus added to additional patent databases on STN
NEWS 18 FEB 22
                 Updates in EPFULL; IPC 8 enhancements added
NEWS 19 FEB 27 New STN AnaVist pricing effective March 1, 2006
NEWS 20 FEB 28
                 MEDLINE/LMEDLINE reload improves functionality
NEWS 21 FEB 28
                 TOXCENTER reloaded with enhancements
NEWS 22 FEB 28
                 REGISTRY/ZREGISTRY enhanced with more experimental spectral
                 property data
NEWS 23 MAR 01
                 INSPEC reloaded and enhanced
NEWS 24
        MAR 03
                 Updates in PATDPA; addition of IPC 8 data without attributes
NEWS EXPRESS FEBRUARY 15 CURRENT VERSION FOR WINDOWS IS V8.01a,
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              AND CURRENT DISCOVER FILE IS DATED 19 DECEMBER 2005.
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FILE 'USPATFULL' ENTERED AT 14:13:32 ON 07 MAR 2006
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FILE COVERS 1971 TO PATENT PUBLICATION DATE: 2 Mar 2006 (20060302/PD)
FILE LAST UPDATED: 2 Mar 2006 (20060302/ED)
HIGHEST GRANTED PATENT NUMBER: US7007305
HIGHEST APPLICATION PUBLICATION NUMBER: US2006048257
CA INDEXING IS CURRENT THROUGH 28 Feb 2006 (20060228/UPCA)
ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 2 Mar 2006 (20060302/PD)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Dec 2005
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Dec 2005

=> s aluminum and zirconium

623092 ALUMINUM

82541 ZIRCONIUM

L1 55266 ALUMINUM AND ZIRCONIUM

=> s antiperspirant? or deodorant?

3669 ANTIPERSPIRANT?

10522 DEODORANT?

L2 11606 ANTIPERSPIRANT? OR DEODORANT?

=> s l1 and l2

L3 1436 L1 AND L2

=> s HPLC

L4 94378 HPLC

=> s 13 and 14

L5 124 L3 AND L4

=> s Band II and Band III and Band IV

436696 BAND

880648 II

267 BAND II

(BAND(W)II)

436696 BAND

664578 III

662 BAND III

(BAND(W)III)

436696 BAND

473105 IV

89 BAND IV

(BAND(W)IV)

L6 27 BAND II AND BAND III AND BAND IV

=> s 16 and 15

L7 9 L6 AND L5

=> s glycine?

L8 90402 GLYCINE?

=> s 18 and 17

9 L8 AND L7

=> d 1-9 ibib abs

L9 · ANSWER 1 OF 9 USPATFULL on STN

ACCESSION NUMBER: 2005:305302 USPATFULL

High pH antiperspirant compositions of TITLE:

enhanced efficacy

INVENTOR(S): Li, Zijun, Westfield, NJ, UNITED STATES

KIND DATE NUMBER -----PATENT INFORMATION: US 2005265939 A1 20051201 APPLICATION INFO.: US 2004-857493 A1 20040528 (10) Utility

DOCUMENT TYPE: FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: GENERAL CHEMICAL PERFORMANCE PRODUCTS LLC., 90 EAST

HALSEY ROAD, PARSIPPANY, NJ, 07054, US

NUMBER OF CLAIMS: EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 3 Drawing Page(s)

LINE COUNT: 703

CAS INDEXING IS AVAILABLE FOR THIS PATENT. Aluminum and aluminum-zirconium

> antiperspirant compositions of enhanced efficacy and a pH value of at least 3.5 are provided that are made by reaction with insoluble, strongly alkaline strontium or calcium salts. The aluminum and

aluminum-zirconium strontium or calcium compositions show high pH values with characteristic HPLC Band

III to Band II ratios of at least 0.5. The

basic aluminum halohydrate (or nitrate) solutions typically have aluminum to anion ratio of less that 1.9. The solution compositions are stable with respect to both HPLC Band

III to Band II ratio and viscosity at

concentrations of about 20% to about 40% by weight of anhydrous solid. The solid state compositions form hard sticks with low irritation, at low metal to chloride ratios of about 0.9 to about 1.2.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ANSWER 2 OF 9 USPATFULL on STN

ACCESSION NUMBER: 2005:247040 USPATFULL

TITLE: ENHANCED EFFICACY BASIC ALUMINUM

HALIDES/METAL CATION SALT, ANTIPERSPIRANTS

ACTIVES AND COMPOSITIONS CONTAINING SUCH MATERIALS AND

METHODS FOR MAKING

Parekh, Jawahar C., Livingston, NJ, UNITED STATES INVENTOR(S):

Amin, Pradip, Edison, NJ, UNITED STATES

NUMBER KIND DATE -----US 2005214234 A1 20050929 US 2004-807872 A1 20040324 (10) PATENT INFORMATION:

APPLICATION INFO.:

DOCUMENT TYPE: Utility FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: GENERAL CHEMICAL PERFORMANCE PRODUCTS LLC., 90 EAST

HALSEY ROAD, PARSIPPANY, NJ, 07054, US

NUMBER OF CLAIMS: EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 1 Drawing Page(s)

LINE COUNT: 673

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Disclosed are aqueous antiperspirant active compositions comprising an admixtures of basic aluminum halides and a metal cation salts which yield enhanced antiperspirant efficacy; and methods of making such antiperspirant compositions. The basic aluminum halides, optionally contain an amino acid or salts of amino acids, and/or antimicrobial agent and are combined with a metal cation antiperspirant (e.g., Ti salt or Hf salt or Sn salt or Zr salt) and optionally with a organic solvent having at least two carbon atoms and at least one hydroxy group and mixtures thereof and methods of making such mixtures. Basic aluminum halides having enhanced antiperspirant efficacy are produced by reacting (a) aluminum powder; (b) an aluminum halide; and (c) water at a temperature greater than about 85° C. This reaction is maintained until reaction products having an Al:halide ratio of about 1.2 to 1.5 and preferably 1.3 to 1.4:1; and a solution solids concentration of about 30-40 weight percent on an anhydrous basis are obtained. The basic aluminum halide of this invention are characterized as having a Size Exclusion Chromatography (HPLC) Test Band I of less than 5%, preferably less than 1%, Band II percent aluminum value of 20%-60% preferably about 35% to 55%, Band III percent aluminum value of 10% to 35% preferably 15%-30% and Band IV value of 15% to 50% preferably 25% to 35% and sum of peak 3 and 4 areas of at least 45% and no more than 70% and preferably 65%.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ANSWER 3 OF 9 USPATFULL on STN

ACCESSION NUMBER: 2005:208458 USPATFULL

TITLE: Method of making aluminum-zirconium

antiperspirant of enhanced efficacy

INVENTOR(S): Li, Zijun, Westfield, NJ, UNITED STATES

> NUMBER KIND DATE -----US 2005180934 A1 20050818 US 2004-756620 A1 20040217 (10)

APPLICATION INFO.: DOCUMENT TYPE: Utility FILE SEGMENT: APPLICATION

Arthur J. Plantamura, c/o General Chemical, 90 E. LEGAL REPRESENTATIVE:

Halsey Road, Parsippany, NJ, 07054, US

NUMBER OF CLAIMS: 11 EXEMPLARY CLAIM:

PATENT INFORMATION:

NUMBER OF DRAWINGS: 2 Drawing Page(s)

LINE COUNT: 364

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

A novel efficacious and less irritant aluminumzirconium antiperspirant composition is provided by the addition of a small amount of AlCl.sub.3 and/or HCl to the activated aluminum component. After the heating of diluted basic aluminum chlorohydrate solution, cooling to room temperature, mixing with small amount of AlCl.sub.3 or HCl and then reacting with zirconium glycine complex, an aluminumzirconium salt is produced with a maximum amount of depolymerization aluminum and zirconium species. The

addition of a small amount of AlCl.sub.3 or HCl to the diluted and activated aluminum chlorohydrate solution accelerates the depolymerization of the activated ACH solution, and upon the addition of zirconium glycinate the solution is further depolymerized and results in the formation of less polymerized zirconium species.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ANSWER 4 OF 9 USPATFULL on STN Ь9

2005:140303 USPATFULL ACCESSION NUMBER:

TITLE: Enhanced efficacy basic aluminum halides,

antiperspirant active compositions and methods

for making

INVENTOR (S): Parekh, Jawahar C., Livingston, NJ, UNITED STATES

Amin, Pradip, Edison, NJ, UNITED STATES

PATENT ASSIGNEE(S): Reheis, Inc., Berkeley Heights, NJ, UNITED STATES (U.S.

corporation)

NUMBER KIND DATE ----- ----- ---- ----- ------

US 6902724 B1 20050607 US 2004-807996 20040324 PATENT INFORMATION:

APPLICATION INFO.: 20040324 (10)

DOCUMENT TYPE: Utility GRANTED FILE SEGMENT:

PRIMARY EXAMINER: Dodson, Shelley A. LEGAL REPRESENTATIVE: Plantamura, Arthur J.

NUMBER OF CLAIMS: EXEMPLARY CLAIM:

AB

NUMBER OF DRAWINGS: 2 Drawing Figure(s); 2 Drawing Page(s)

LINE COUNT: 1057

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Disclosed are basic aluminum halides having enhanced antiperspirant efficacy; methods of making such materials and antiperspirant compositions containing such basic aluminum halides, and optionally an amino acid, salts of amino acids, antimicrobial agents, or an organic solvent having at least two carbon atoms and at least one hydroxy group and mixture thereof and methods of making such mixtures. Basic aluminum halides having enhanced antiperspirant efficacy are produced by reacting (a) aluminum powder; (b) an aluminum halide; and (c) water at a temperature greater than about 85° C. This reaction is maintained until reaction products having an Al:halide ratio of about 1.2:1 to 1.5:1 and preferably 1.3 to 1.4:1; and a solution solids concentration of about 30-40 weight percent on an anhydrous basis are obtained. The products are characterized as having a Size Exclusion Chromatography (HPLC) Test Band I of less than 5%, preferably less than 1%, Band II percent aluminum value of 20-60% preferably about 35 to 55%, Band III percent aluminum value of 10 to 35% preferably 15-30% and Band IV value of 15 to 50% and preferably 25 to 35% and sum of peak 3 and 4 areas of at least 45% and no more than 70% and preferably 65%. The enhanced efficacy basic aluminum chloride salts of this invention are more economical to produce, show enhanced efficacy and are more stable compared to the conventional enhanced efficacy aluminum salts which show rapid degradation of Band III to Band II peak areas ratio are less irritant and more skin friendly.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:

2004:120031 USPATFULL

TITLE:

Antiperspirant compositions of enhanced

efficacy containing strontium

INVENTOR (S):

Li, Zijun, Westfield, NJ, UNITED STATES

Parekh, Jawahar C., Livingston, NJ, UNITED STATES

NUMBER KIND DATE -----

PATENT INFORMATION:

US 2004091436 A1 20040513

APPLICATION INFO.:

US 2002-292861 A1 20021112 (10)

DOCUMENT TYPE:

Utility

FILE SEGMENT:

APPLICATION

LEGAL REPRESENTATIVE: Arthur J. Plantamura, General Chemical Corp., 90 East

Halsey Road, Parsippany, NJ, 07054

NUMBER OF CLAIMS: EXEMPLARY CLAIM:

1

LINE COUNT:

300

CAS INDEXING IS AVAILABLE FOR THIS PATENT. AΒ

Antiperspirant actives of aluminum and

aluminum-zirconium of enhanced efficacy containing

strontium and an amino acid that have a stable high HPLC Band III/II ratio are disclosed. The invention also

discloses method for making the antiperspirant actives.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ANSWER 6 OF 9 USPATFULL on STN

ACCESSION NUMBER:

2002:238631 USPATFULL

TITLE:

Enhanced efficacy aluminum-zirconium antiperspirants and methods for making

INVENTOR(S):

Li, Zijun, 313 Hazel Ave., Westfield, NJ, United States

07090

Parekh, Jawahar Chunilal, 62 Hillside Ave., Livingston,

NJ, United States 07039

NUMBER KIND DATE ______

PATENT INFORMATION:

US 6451296 B1 20020917 US 2000-496168 20000201

APPLICATION INFO.:

20000201 (9)

DOCUMENT TYPE:

Utility GRANTED

FILE SEGMENT:

Nazario-Gonzalez, Porfirio

PRIMARY EXAMINER:

LEGAL REPRESENTATIVE: Plantamura, Arthur J.

NUMBER OF CLAIMS:

26

EXEMPLARY CLAIM:

1,18,26

NUMBER OF DRAWINGS:

1 Drawing Figure(s); 1 Drawing Page(s)

LINE COUNT:

460

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Stable aluminum-zirconium antiperspirant

> compositions in polyhydric alcohol solution with enhanced efficacy were made by direct reaction in aqueous solution of a soluble

aluminum salt, a zirconium compound, a polyhydric

alcohol, aluminum metal and optionally an amino acid buffer, and maintaining the solution at 100-140° C. to form a 20-45% by

weight concentration of aluminum-zirconium complexes

on an anhydrous basis. A solid product can be obtained by spray drying the product solution.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ANSWER 7 OF 9 USPATFULL on STN

ACCESSION NUMBER: 1999:113352 USPATFULL

Enhanced efficacy stable antiperspirant TITLE:

active solution and method of making same

INVENTOR (S): Giovanniello, Rocco, Port Jervis, NY, United States

> Ayala, Nelson, Middletown, NY, United States Shen, Jing, Middletown, NY, United States Shah, Ketan, Poughkeepsie, NY, United States

PATENT ASSIGNEE(S): Westwood Chemical Corporation, Middletown, NY, United

States (U.S. corporation)

NUMBER KIND DATE

-----US 5955064 19990921 US 1997-955056 19971021 (8) PATENT INFORMATION: APPLICATION INFO.:

DOCUMENT TYPE: Utility FILE SEGMENT:

FILE SEGMENT: Granted
PRIMARY EXAMINER: Dodson, Shelley A.

LEGAL REPRESENTATIVE: Ostrolenk, Faber, Gerb & Soffen, LLP

NUMBER OF CLAIMS: EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 8 Drawing Figure(s); 8 Drawing Page(s)

LINE COUNT: 1090

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

An enhanced antiperspirant active having improved stability and a process for preparing the enhanced antiperspirant active solution are disclosed, the process comprises blending an enhanced basic aluminum chlorohydrate antiperspirant active having a peak 4 content of at least 20% (Component A) with a zirconium hydroxychloride neutral amino acid complex (component B) and a conventional basic aluminum chloride (Component C) , the order of addition not being critical; wherein at least 10% by weight of the total aluminum being derived from Component A and about 90% to 10% of the aluminum being derived from Component C; thereby

forming a stable antiperspirant active solution of enhanced efficacy, the overall concentration of reactants in solution being about 38% to 55% by weight.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ANSWER 8 OF 9 USPATFULL on STN

ACCESSION NUMBER: 1999:63089 USPATFULL

Method of inhibiting perspiration with basic TITLE:

aluminum and aluminum/ zirconium antiperspirants

INVENTOR(S): Parekh, Jawahar C., Livingston, NJ, United States

Rubino, Andrew M., New Providence, NJ, United States

PATENT ASSIGNEE(S): Reheis Inc., Berkeley Heights, NJ, United States (U.S.

corporation)

KIND DATE NUMBER -----

US 5908616 19990601 19980216 PATENT INFORMATION: APPLICATION INFO.: (9)

Division of Ser. No. US 1996-635290, filed on 19 Apr RELATED APPLN. INFO.: 1996, now patented, Pat. No. US 5718876 which is a continuation of Ser. No. US 1990-579902, filed on 7 Sep

1990, now abandoned

DOCUMENT TYPE: Utility FILE SEGMENT: Granted

Dodson, Shelley A. PRIMARY EXAMINER:

PRIMARI EARL..... LEGAL REPRESENTATIVE: Panitch, Schwarze, Jacobs & Nadel, P.C.

NUMBER OF CLAIMS: 13 EXEMPLARY CLAIM: